April 6, 2011

Comments on Energy Star Proposed Most Efficient Pilot Program Submitted by TopTen USA

Cooperation Between Energy Star Most Efficient and TopTen USA

TopTen USA (www.toptenusa.org) supports the need for, and value of, programs like "Most Efficient." We applaud the efforts of the Environmental Protection Agency (EPA) to transform the market and promote the sale and development of more efficient products.

Since TopTen USA and Energy Star will co-exist, it is highly desirable for consumers, manufacturers, retailers and utility partners that we coordinate our work and harmonize our criteria to the extent possible. A lack of clear cooperation risks delaying progress toward energy efficiency, as market actors would need to sort out on their own how these two programs, one non-governmental, the other taxpayer funded, each identifies the most efficient products. From a consumer's standpoint, there are issues inherent in Most Efficient's proposed methodology that not only lead to conflicts with TopTen's results but may steer consumers to mis-sized products that, though highly efficient, ultimately result in unnecessary energy consumption.

Our comments to the proposed Most Efficient Pilot Program below demonstrate how our work can inform the Energy Star effort and vice-versa.

Overall Approach

The approach that Energy Star took in preparing the specifications was defined in its initial proposal as follows: "A case-by-case review of performance data and technology developments for each category, with the selection of a performance level that reflects the latest in technological advancement and initially includes a very limited set of qualifying models, though sufficient product availability to support administered energy efficiency programs and retailer efforts."

1. It is not clear how EPA decided which products exhibited truly exceptional performance. EPA should explain the basis for the line that it drew for each product category. Without an explanation of the "performance data and technology development for each category," it is impossible to assess the validity of EPA's case-by-case determinations. Was there a clustering of products at the top and then a gap before the next-most efficient products? If so, how large was the gap, and does

it vary across product categories? Without a protocol, a "case by case" approach can appear arbitrary.

2. It is also unclear whether or how EPA determined the existence of "sufficient product availability." According to our data, we see a lack of product in key market segments of the 6 categories. For example, it appears that only 18 of the 28 qualifying televisions are available for purchase by U.S. consumers.

   On both of these issues we are happy to share with Energy Star staff the thinking that went into establishing our own system for identifying super-efficient products, with a view to best possible alignment. TopTen USA has developed procedures that clearly articulate general principles, requirements for category analysis, the process for listing products and a template for information to be presented to the public. For example, with the goal of easy understanding on the part of the consumer, we list the 10 most efficient appliances currently available on the market rather than taking a case-by-case, percentage of a periodic listing or some other static approach. Though limiting the list to 10 might be seen by some as an arbitrary device, it is easy to understand and is consistently applied across all of our product categories and subcategories.

   We have devoted significant resources to the process of codifying this approach – and we are happy to share this and adapt it, as needed, to facilitate effective cooperation with Energy Star Most Efficient.

3. EPA states in its cover letter that in establishing its specifications there was "no compromise in performance. Consistent with EPA's guiding principles for Energy Star, recognition criteria must reflect products that perform as well as or better than standard products in the market." It is unclear what objective metrics EPA used, or will use, in meeting this laudable goal. How, for example, will EPA determine that a clothes washer seeking Most Efficient designation cleans as well or better than standard products in the market? This is an extremely difficult issue we grapple with at TopTen and we would be happy to explore possible solutions with EPA staff. TopTen USA is exploring placing on its web site reviews, from both experts and the public, of the performance of listed products that could help address this problem. We would welcome an opportunity to work with EPA in establishing such a system.

Comments on Individual Specifications

TopTen USA currently covers 10 product categories[1], three of which overlap with the Most Efficient Specifications. We offer several comments on these overlapping categories, based on our considerable research and a comparison of the Energy Star Most Efficient approach and listings with our own.

[1] TopTen will soon publish lists for hot water heaters and room air conditioners and reissue our car and truck/small SUV lists. These lists also do not overlap with the Most Efficient specifications. That will bring TopTen to a total of 14 categories, not counting subcategories.

Televisions

1. The Most Efficient criteria are significantly biased towards large televisions. This runs counter to the overall objective of Energy Star to reduce energy use and discourage unnecessarily larger appliances. Of the 28 models that would qualify under the proposal 20 are 46 inches or larger. At TopTen USA, we have given great care to the way that we segment the market, with a view to encouraging consumers to consider smaller models that might meet their functional needs. For this reason, we have three size categories for TVs and cap absolute power usage in active mode at the upper end.

2. We estimate that 23 of the 28 Most Efficient models are utilizing automatic brightness control to achieve their low power values, and one of the models appears to operate at an unusually low luminance value all of the time. This luminance issue will become increasingly important for Energy Star and TopTen USA to address in a new way as the competition for "Most Efficient" or "Top Ten TV" intensifies. The test procedure and associated efficiency specifications need to encourage luminance levels that are high enough to ensure good picture quality across a range of room luminance conditions, but not so high that they consume too much energy and yield an overly bright picture. At the present time, they do not.

3. Annual updating of televisions is not frequent enough to keep track of the rapid pace at which new television technologies are entering the marketplace. At TopTen USA, we are able to update on a regular basis as new products are brought to market. In the case of televisions, for example, since October our list of televisions has changed dramatically. The maximum power use has dropped roughly 20%.[2]

Refrigerators

1. EPA has proposed a stringent standard and we comment the agency for establishing a maximum energy use level. However, the resulting products from the published specifications are all very similar and allow for very little consumer choice. By our count, there are 13 base models that would qualify (representing 66 model numbers).
2. Of those 13 models, no refrigerators under 17 cu ft. appear to qualify. This ignores the important market for refrigerators placed in small apartments.
3. Of the 13 models, none is over 22 cubic feet. Since the average refrigerator sold is 22 cubic feet, this would deny "most efficient" purchasing guidance to a substantial portion of those buying new refrigerators.

At TopTen USA, we segmented the full-sized refrigerator market into three size classes. In many cases, consumers often have no choice in size, given space limitations, or want to fill the existing "hole" left by the old appliance, so we offer choices in different categories.

[2] A new TopTen USA list of televisions will be published on our web site within the next month. The previous TopTen models, if still on the market, will remain on our site in a separate list.

Clothes Washers

As with televisions, this category is biased towards the largest models. Of the 8 base models that would now qualify under Most Efficient, the smallest model is 3.81 cu. Ft. By contrast, TopTen USA's smallest qualifying model is 1.76 cubic feet and – although the smaller models do not meet the same electrical efficiency levels as the larger models – they use significantly less water (and energy embedded in water). Similar to the situation for refrigerators, many consumers do not have the space for a large appliance. Furthermore, the needs of small households can be met by a smaller machine, which may result in lower energy consumption, even if the MEF is higher than for a larger machine, because the MEF assumes standard operating parameters, whereas small households would be expected to use a large machine to wash partial loads, which translates into greater consumption.

Potential for Consumer Confusion

By including the Most Efficient program within the existing Energy Star program, EPA is increasing the likelihood that consumers will confuse the programs. This might have one of two nearly opposite, but both negative consequences: either consumers may assume that all Energy Star products are "most efficient", or they will understand the added value of "Most Efficient", but therefore be frustrated, when they are only presented with "just" Energy Star, since the Most Efficient will only cover several categories. This potential for confusion is compounded by the fact that the logos for the two programs are so similar. We strongly recommend that the Energy Star brand and logo be separated from the Most Efficient pilot. Perhaps this is another reason to consider a close cooperation with TopTen USA.

We would also like to share one important lesson learned from the long experience with topten in Europe. A super-efficient listing needs to have the broadest possible product palette to succeed and have a sustained market transformation effect as *the* one-stop shop for credible information on the most efficient products. That is a key reason that TopTen USA addresses a wider range of energy-using consumer products, currently ranging from appliances to electronics and SUVs – with new product categories under preparation. In our view, this is another compelling reason for ongoing cooperation between Energy Star Most Efficient and TopTen USA.

Conclusion

We believe the overall approach and individual product specifications for Energy Star Most Efficient can be improved and that explicit cooperation with TopTen USA would be mutually beneficial and deliver superior outcomes. We therefore hope to join forces prior to the launch of Energy Star Most Efficient, so that we can communicate a coherent vision of co-existence to the marketplace. The institutions behind TopTen USA are leaders in the energy efficiency field and, together with our foundation sponsors, are eager to work together to present the best possible program approaches that make the most of the unique capabilities of Energy Star and our non-profit.

We again reiterate our belief that our two programs should be working to harmonize our efforts. We look forward to working with you in advancing our shared goal of more efficient products and a cleaner, healthier planet.

Respectfully submitted,

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